



January 3, 2007

Director, Multi-media Planning and Permitting Division,
EPA Region 6
1445 Ross Avenue, Suite 1200
Mail Code: 6PD
Dallas, TX 75202-2733

Subject: **Domtar Industries Inc., Ashdown Mill**
Request for a variance on certain provisions of 40 CFR 63, Subpart DDDDD -
National Emission Standards For Hazardous Air Pollutants for Industrial,
Commercial and Institutional Boilers and Process Heaters

Dear Sir/Madame:

Pursuant to Title 40, Chapter 1, Subchapter C, Part 63 paragraph 63.8 (f) and Subpart DDDDD paragraph 63.7500 (a) (2) of the Federal Clean Air Act (CAA), Domtar Industries Inc ("Domtar") requests the permission to set an alternate minimum wet scrubber liquid flow rate in complying with paragraph 63.7530 (c) of 40 CFR 63, Subpart DDDDD - National Emission Standards For Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters (69 Fed. Reg. 55218, September 13, 2004, also known as the "Boiler MACT Rule") for its Ashdown Arkansas (285 Hwy 71 South, Ashdown AR, 71822, FID # 71822NKSPPHIGHW) manufacturing facility.

No. 2 Power Boiler at the Domtar Industries Inc. (Domtar) Ashdown Arkansas Mill is subject to 40 CFR 63, Subpart DDDDD, the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters (the "Boiler MACT Rule"). No. 2 Power Boiler is controlled with a wet scrubber. As such, it will be subject to various parametric monitoring requirements of the Boiler MACT Rule to ensure continuous compliance demonstration with the emission provisions of the new rule. This letter constitutes a request under 40 CFR Section 63.8(f) for EPA approval to use alternative methods for setting minimum flow and pressure differential limits for continuous compliance demonstration of compliance to the total selected metals (TSM) and mercury standards set forth in the Rule.

Subchapter C, Part 63 paragraph 63.8 (f) and Subpart DDDDD paragraph 63.7500 (a) (2) authorize EPA to approve, on a case-by-case basis, the use by regulated entities of alternative monitoring methods, provided that the intended result of this monitoring method is the same as what is specified in the regulation. Domtar believes that the current provisions included in Ashdown's current Title V permit (ADEQ Operating Air Permit No.: 287-AOP-R6, effective July 12th, 2006 and pursuant to the Regulations of the Arkansas Operating Air Permit

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Program, Regulation No. 26) contains parametric compliance limits with respect to scrubber liquid flow rates on its #2 Power Boiler (source SN-05) to warrant this variance.

Paragraph 63.7530 (c) of Subpart DDDDD calls for the following:

§ 63.7530 How do I demonstrate initial compliance with the emission limits and work practice standards?

...

(4) You must establish parameter operating limits according to paragraphs (c)(4)(i) through (iv) of this section. (i) For a wet scrubber, you must establish the minimum scrubber effluent pH, liquid flowrate, and pressure drop as defined in § 63.7575, as your operating limits during the three-run performance test. If you use a wet scrubber and you conduct separate performance tests for particulate matter, HCl, and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flowrate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flowrate and pressure drop operating limits at the highest minimum values established during the performance tests.

Domtar believes that, with respect to showing compliance to the particulate matter, Total Selected Metals (TSM) and mercury standards of Subpart DDDDD, Specific Condition 63 of Ashdown's Title V permit meets the intended purpose of Rule and should be accepted as an alternate monitoring method for this parameter. SC 63 of the current permit reads as follows:

- 63 *In lieu of the continuous opacity monitor required by 40 CFR §60.45 and 40 CFR §60.284(a)(1), the permittee will comply with the following EPA approved monitoring plan. The Department determined and the permittee agreed that compliance with the following requirements will also demonstrate compliance with the particulate matter and the lead emission rates.*
- a. maintain a minimum flow rate of scrubbing liquid flow rate of 1,500 gallons per minute;*
 - b. maintain the pressure drop of the gas stream across the scrubber at or above 10 in. H₂O, and*
 - c. continuously monitor and record the scrubbing liquid flow rate and the pressure drop of the gas stream across the scrubber*

EPA's intent with this requirement, as outlined below in an excerpt from the Rule's preamble, was to ensure continuous compliance demonstration for sources that could not use opacity as a surrogate for particulate matter, TSM and/or mercury.

F. What Are the Testing and Initial Compliance Requirements?

...

A summary of the operating limits that must be established for the various types of controls are as follows:

- (1) For boilers and process heaters without wet scrubbers that must comply with the mercury emission limit and either a PM emission limit or a total selected metals emission limit, you must meet an opacity limit of 20 percent for existing sources (based on 6-minute averages), except for one 6-minute period per hour of not more than 27 percent, or 10 percent for new sources (based on 1-hour block averages).*
- (2) For boilers and process heaters without wet or dry scrubbers that must comply with an HCl emission limit, you must determine the average chloride content level in the input fuel(s) during the HCl performance test. This is your maximum chloride input operating limit.*
- (3) For boilers and process heaters with wet scrubbers that must comply with a mercury, PM (or total selected metals) and/or an HCl emission limit, you must measure pressure drop and liquid flow rate of the scrubber during the performance test and calculate the average value for each test run. The minimum test run average establishes your site-specific pressure drop and liquid flow rate operating levels. If different average parameter levels are measured during the mercury, PM (or metals) and HCl tests, the highest of the minimum test run average values establishes your site-specific operating limit. If you are complying with an HCl emission limit, you must measure pH during the performance test for HCl and determine the average for each test run and the minimum value for the performance test. This establishes your minimum pH operating limit.*

Domtar believes that Specific Condition 63 of its current air operating permit meets the general requirements outlined in Section F of the Rule's preamble and are equivalent to the technical requirements set forth in Section 63.7530 of the Rule itself and is asking EPA to concur with its assessment and grant its request Title 40, Chapter 1, Subchapter C, Part 63 paragraph 63.8 (f) and Subpart DDDDD paragraph 63.7500 (a) (2) of the Clean Air Act (CAA).

If you need additional information to process this request, please don't hesitate to call me at (870) 898-2711 x 6168.

Regards,



DOMTAR INDUSTRIES INC.

Kelley R. Crouch
Sr. Process Engineer- Environmental & Energy

cc: Mr. Jim Eddinger - EPA, OAQPS, Research Triangle Park, NC
Mr. Mike Bates - Chief, Air Division, ADEQ, Little Rock, AR
Mr. Guy Martin - Director, Environment, Domtar Inc.

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Subject: **Domtar Industries Ashdown Arkansas Mill**
Request for approval of alternative monitoring pH calibration schedule
under 40 CFR 63, Subpart DDDDD - National Emission Standards for
Hazardous Air Pollutants for Industrial, Commercial and Institutional
Boilers and Process Heaters

Dear Sir/Madame:

The No. 1 and No. 2 Power Boilers at the Domtar Industries Inc. (Domtar) Ashdown Arkansas Mill are subject to 40 CFR 63, Subpart DDDDD, the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters (the "Boiler MACT Rule"). No.1 Power Boiler, currently controlled by multiclones, will have its emissions controlled by a wet electrostatic precipitator prior to the effective date for Boiler MACT implementation, while No. 2 Power Boiler is controlled with a wet scrubber. As such, both will be subject to the pH monitoring requirements of the Boiler MACT Rule, which requires a two-point calibration of affected pH meters every eight hours. This letter constitutes a request under 40 CFR Section 63.8(f) for EPA approval to use an alternate calibration schedule for the on-line pH meters at the Ashdown Mill. In this regard, please note that EPA has stated that it will allow alternative pH calibration plans and that requests for such alternative plans should be submitted to the appropriate EPA regional office for approval. See item #4 in letter from Michael Alushin, EPA to Timothy Hunt, AF&PA, March 29, 2006 (copy attached.)

Title 40, Subchapter C, Part 63 section 63.8 (f) and Subpart DDDDD section 63.7500 (a) (2) authorize EPA to approve, on a case-by-case basis, the use of alternative monitoring methods to those specified in a NESHAP, provided that accuracy of measurement is maintained and the methods listed in the regulations are not practical or economical. As described below, Domtar believes that the pH meter calibration procedures in Section 63.7525 (f) (3) are neither practical nor economical for the Ashdown Mill and are

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unnecessary to ensure accuracy of the pH measurement. Please note that this issue was previously raised by the American Forest & Paper Association (AF&PA) and the Council of Industrial Boiler Owners (CIBO) in previous questions to EPA. Section 63.7525 (f) of Subpart DDDDD provides as follows:

§ 63.7525 *What are my monitoring, installation, operation, and maintenance requirements?*

...

(f) If you have an operating limit that requires the use of a pH measurement device, you must meet the requirements in paragraphs (c) and (f)(1) through (3) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

Domtar believes that, while items (1) and (2) represent common engineering practice, item (3) is unnecessarily burdensome.

First, Domtar's experience with pH meters in other similar applications has demonstrated that calibration drift is minimal. Weekly checks using proven methods such as, among others, EPA 150-2, USGSI-1586-85, ASTM D1293-84(90) (A or B) or D6569-05 have proven very effective in ensuring the stability of pH measurements. The added time and expense of conducting a calibration every 8 hours as opposed to a weekly schedule, as is the case throughout most of the Pulp and Paper Sector, is not justified in view of the inherent success of the calibration methods currently in use in this Sector and, more specifically, at the Ashdown Mill.

Second, the frequency of calibration is disproportionate to the frequency of sampling. Sections 63.7525(c)(1) and (4) read as follows:

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data

...

(4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (c)(3) of this section.

Requiring a calibration of the pH meter every 8 hours means that calibration is required every two and two-third ($2\frac{2}{3}$) block average. Contrast this to continuous opacity monitors that are required to be calibrated on a daily basis, which is once every 240 six minute block-averaging periods. Calibrating a pH meter every $2\frac{2}{3}$ block-averaging

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period is not warranted considering the inherent stability of pH measurements in wet scrubber applications.

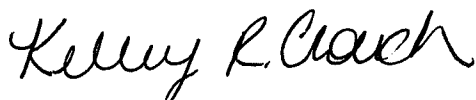
Third, the Pulp and Paper Industry has been complying with the provisions of 40 CFR 63, Subpart S - National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry (better known as the "Cluster Rules") since April 15th, 2001, which include monitoring provisions for scrubber medium pH (40 CFR Section 63.453 (c) (1)) without this burdensome calibration requirement. Mills have been complying with the Cluster Rules for over five years by using industry-accepted calibration methods (see above) and frequencies for pH meters, methods that have been acceptable to EPA in the past.

Finally, a Compliance Assurance Monitoring (CAM) technical guidance document from EPA (4.5.5.1) notes clearly that the 8-hour requirement is for the calibration of laboratory pH meters, not online meters. The document states that calibration of continuous pH meters will be more difficult than for lab pH meters. Additionally, the rule's calibration schedule is not consistent with some other MACT regulations for similar applications. For example, 40 CFR Part 63 NESHAP for Refractory Products Manufacturing, Section 63.9804(e)(4) allows for a weekly pH calibration, and the application of the pH measurement in the Refractory Products rule is similar to the Boiler MACT rule, i.e., both are used in wet scrubber liquid applications.

In sum, the requirement to conduct calibration of its pH meters every 8-hours is unnecessary and unduly burdensome to the Ashdown Mill.

Therefore, we request that EPA grant Domtar approval of our request that the Ashdown Mill be allowed to calibrate its pH meters, which are used for parametric compliance demonstration with the HCl limits set forth in Boiler MACT, on an operating time basis that is equivalent to a week's worth of operations. If you need additional information to process this request, please don't hesitate to call me at (870) 898-2711 x 6168.

Regards,



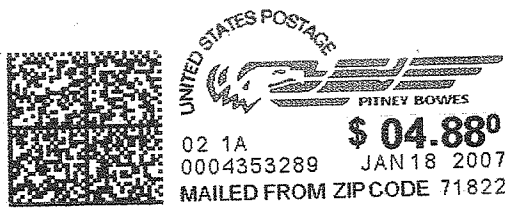
DOMTAR INDUSTRIES INC.

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Sr. Process Engineer – Environmental & Energy

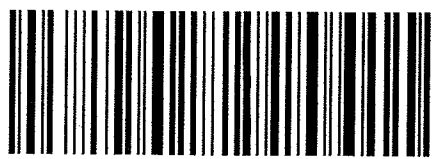
cc: Mr. Jim Eddinger - EPA, OAQPS, Research Triangle Park, NC
Mr. Mike Bates - Chief, Air Division, ADEQ, Little Rock, AR
Mr. Guy Martin – Director, Environment, Domtar Inc.

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